

REMARKS/ARGUMENTS

In response to the Office Action dated September 2, 2010, Applicants amend their application and request reconsideration. In this Amendment all of the examined claims, claims 1-8, are cancelled and are replaced by new claims 9-14.

Title and Specification

In response to the extensive discussion in the Office Action at pages 2 and 3 concerning the specification, a substitute specification is supplied along with a comparison document showing the changes made, as compared to the specification as originally filed. The intent of the substitute specification is to present an application in more idiomatic English. Misspellings have been corrected, grammar improved, and similar changes made in order to make the disclosure more easily understood. No new matter is added in the substitute specification. The title and the abstract are likewise amended to conform more closely to the language of the substitute specification and the claims.

Detailed attention has been given to the lengthy Office Action, including the comments concerning the specification. Applicants respectfully disagree with many of the comments. It is Applicants' view that the specification clearly describes the technique that is the subject of the claims presented here. It seems quite apparent that a solvent can penetrate a pellet of a polymer, dissolving a material that is dispersed within the polymer so that the dissolved material is carried out of the pellet of the polymer. Moreover, there is no representation in the patent application that 100% of the material dispersed within the polymer is extracted by the organic solvent that is employed.

While the shape of the pellet or sample that is schematically illustrated in the figures appears to be a parallelepiped and therefore would have six planar surfaces, there is no restriction of the pellet to any particular shape. A spherical pellet would

have only a single surface. Assuming the pellet may have the shape of a parallelepiped, the measured examples provided in the patent application prove that sufficient amount of the dispersed material can be extracted from the pellet to establish not only the composition of the dispersed material but also its concentration within the pellet. If the Examiner is questioning the veracity of the examples, then she is invited to state that challenge directly.

To the extent the original claims may have suggested a quantitative determination of the concentration of the dispersed material in the polymer, the claims now presented do not expressly require any such determination. Moreover, what is described in the examples provided in the patent application is that polymer samples with known concentrations or quantities of dispersed material were prepared. Thus, with respect to multiple samples of the same polymer material containing different concentrations of the dispersed material, the analysis results correlated well with the known concentrations of the dispersed materials. In other words, the examples proved the operativeness of the invention, quantitatively and qualitatively. The samples that were tested function as their own standards because the concentration of the dispersed material was known in advance. Finally, with respect to a reference for the determinations made, the patent application expressly describes the use of a "standard" at page 16, line 17.

With respect to the preparation of the polymer materials with particular concentrations of additives, the disclosure of the patent application is sufficient for one of ordinary skill in the art to prepare those reference or standard compositions. The patent application is not directed to a method of preparing those samples but, rather, relies upon knowledge of those of skill in the relevant arts, in addition to the disclosure in the patent application, for the preparation of those standard or reference samples. The technique described is kneading, a technique well known in the art for preparing polymer compositions. At page 3 of the Office Action the Examiner cited a prior art publication that describes at least one method of forming such polymer materials by kneading, pointing out that, in the known process, the host polymer

material is usually softened, for example, by heating, in order to enable the kneading process. The cited article proves that the technique for preparing samples by kneading was known in the prior art. Thus, the disclosure of the patent application as to this point is clearly sufficient and meets the disclosure requirement of U.S. law.

The claims no longer refer to the gaps between the supporting substrate supporting the polymer pellet and the pellet. However, it is apparent to anyone of ordinary skill in the relevant arts that exactly planar surfaces that identically mate with each other rarely occur. Rather, as schematically illustrated in Figure 3 of the patent application, it can be expected that the supporting substrate 2 lacks a perfectly planar surface as does the surface of the polymer pellet that contacts the supporting substrate. Rather, there are small recesses, gaps, lacunae, and the like between the top surface of the supporting substrate and the opposed surface of the pellet of polymer material. Accordingly, when a liquid organic solvent is disposed on the face of the substrate adjacent the pellet, at least some of that liquid is drawn by capillary action to fill interstices between the two surfaces. This well known effect is entirely sufficient, as shown by the measured data of the patent application in the working examples, to maintain the solvent, subject to evaporation, between and in contact with the top face of the substrate and the pellet of the polymer material. As explained in the patent application, where the solvent is particularly volatile, the loss of the organic solvent by evaporation is made up by continually applying the solvent.

New Claims

The new claims, claims 9-14, that are submitted are entirely consistent with and supported by the disclosure of the patent application as filed. Generic claim 9 is supported by the description with respect to Figure 5 from page 13, line 25 through page 14 of the patent application as filed, not the substitute specification. Example 5, described at pages 20-22 of the patent application likewise supports new claim 9.

New claim 10 is supported by Example 9, which is described at pages 26 and 27 of the patent application as filed.

New claims 11 and 12 include the same limitation and describe vibration of the substrate during the extraction of the minute content. Both Example 4, described at pages 19 and 20 of the specification as filed, and Example 7, described at page 24 of the patent application as filed, support these claims.

Finally, new claims 13 and 14, which have the same limitation, are supported by Example 8 described at pages 25 and 26 of the patent application as filed.

Claim Rejections Pursuant to 35 USC 112, First Paragraph

Applicants submit that the extensive discussion at pages 4-8 of the Office Action boils down to an assertion that claims 1-8 were unduly broader than the scope of the disclosure of the patent application. Applicants respectfully disagree. Nevertheless, it is apparent that new claims 9-14 are not unreasonably broad, considering the scope of the disclosure of the patent application, including nine working examples.

Many of the specific words upon which the Examiner placed emphasis in the discussion at pages 3-7 of the Office Action no longer appear in any pending claim. Applicants have already explained how the organic solvent can be present between the top surface of a supporting substrate and the opposed surface of the pellet of polymer material.

The method of analyzing the residue produced by the organic solvent is now limited to a single technique that is fully supported in the patent application as filed and ordinary knowledge in the relevant art. Moreover, Applicants respectfully submit that the Examiner has interpreted the examined claims in an unduly broad way, considering the scope of those claims. For example, the claims never stated that all of the minute content of the polymer material was extracted in the extraction process. Accordingly, the citations from various publications appearing at pages 6 and 7 of the Office Action were not pertinent to the claims as examined and are clearly not relevant to the claims now presented. Rather, those citations are based upon an assumption

that the subject matter of the claims requires complete extraction of the minute content from the polymer material. There is no basis for such an assumption.

The foregoing comments, in view of the submission of new claims 9-14, are believed to respond completely to and to overcome the rejection of the claims pursuant to 35 USC 112, first paragraph.

Claim Rejections Pursuant to 35 USC 112, Second Paragraph

As understood, the rejection of claims 1-8 pursuant to the second paragraph of 35 USC 112 is based upon particular language of claims 1-8 that no longer appears in any pending claim. Further, the specification has been clarified with regard to the same terms. It is respectfully suggested that the bases of these rejections are merely minor translational errors and that the claims examined could be understood with reasonable effort, taken in combination with the working examples in the patent application. In any event, in view of the submission of new claims, the rejection pursuant to 35 USC 112, second paragraph, is moot.

Prior Art Rejections

Claims 1, 2, 4, 6, and 7 were rejected as unpatentable over Oguro (JP 2001-77158). This rejection is respectfully traversed.

Applicants respectfully note that throughout the characterization of the disclosure of Oguro, reference is made to “aqua region 3.”

Of course, what is described in Oguro is the use of “aqua regia 3” which is very well known in the relevant arts to be a mixture of sulfuric and nitric acids, a mixture that dissolves gold. Aqua regia is, of course, not an organic solvent as is the solvent referred to in the claims now pending. Oguro is directed to identifying metallic contamination on the surface of a silicon wafer. Of course, a silicon wafer is not a pellet of a polymer. There simply is no relationship between Oguro and the invention as claimed in claims 8-14 so that further response to this prior art rejection is neither necessary nor provided.

Claim 3 was rejected as unpatentable over Oguro in view of a non-patent publication to Carrott et al. This rejection is moot.

Claim 3 described chromatographic analysis of a residue of a minute content extracted from a sample. No method now claimed employs chromatographic analysis so that further discussion of the rejection of claim 3 is neither necessary nor provided.

Claim 5 was rejected as unpatentable over Oguro in view of a non-patent publication to Medard et al. This rejection is respectfully traversed.

Medard was relied upon with respect to the use of time-of-flight secondary ion mass spectrometry.

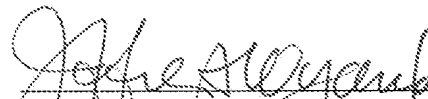
The premise of the rejection of claim 5 is that Oguro suggests claim 1 from which claim 5 depended. However, as already explained, Oguro has no relationship to the invention as claimed in claim 9 or any other pending claim. Therefore, even if Medard should support the proposition for which it is cited, the combination of Oguro and Medard would be insufficient to suggest any claim now pending. Accordingly, no further response to the rejection of claim 5 is necessary.

Apparently there was no prior art rejection with respect to claim 8. Rather, that claim was rejected with respect to the first and second paragraphs of 35 USC 112 so that no reply to any prior art rejection with respect to that claim 8 is necessary.

Conclusion

Since, for the reasons presented here, the newly submitted claims, claims 9-14 are patentable, upon reconsideration, the objections to the patent application and rejections with respect to claims 1-8 should be withdrawn, and claims 9-14 should be allowed.

Respectfully submitted,



Jeffrey A. Wyand, Reg. No. 29,458

LEYDIG, VOIT & MAYER

700 Thirteenth Street, N.W., Suite 300

Washington, DC 20005-3960

(202) 737-6770 (telephone)

(202) 737-6776 (facsimile)

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JAW:ves